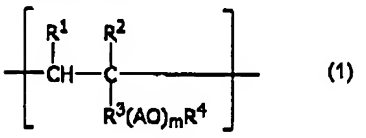
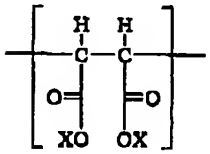
Abstract

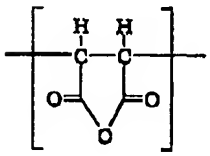
A phospholipid derivative, utilizable for modification of liposomes and the like, which is a copolymer containing, as essential component units, a component unit A represented by the formula (1), a component unit B represented by the formula (2A) and/or the formula (2B), and a component unit C represented by the formula (3) [R^1 and R^2 represent hydrogen atom or methyl group, provided that R^1 and R^2 do not simultaneously represent methyl group; R^3 represents a divalent hydrocarbon group having 1 to 3 carbon atoms; AO represents an oxyalkylene group having 2 to 4 carbon atoms; m represents an average molar number of the added oxyalkylene groups and is a number in the range represented as $4 \leqq m \leqq 100$; R^4 represents hydrogen atom, a hydrocarbon group or acyl group having 1 to 20 carbon atoms; R^5CO and R^6CO represent an acyl group having 8 to 24 carbon atoms; R^7 represents a divalent hydrocarbon group having 2 to 4 carbon atoms; and X and Y represent hydrogen atom, an alkali metal atom, ammonium or an organic ammonium] wherein a molar ratio of the component unit A relative to a total of the component unit B and the component unit C is from 7/3 to 3/7, and the component unit C is contained at a ratio of from 1 to 4 moles per 1 mole of the copolymer.



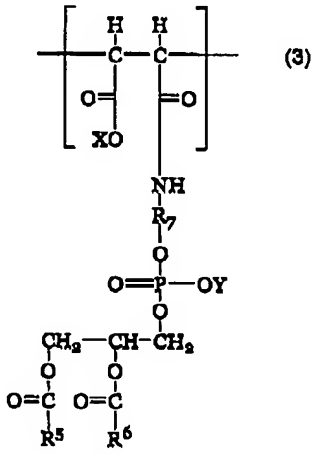
(1)



(2A)



(2B)



(3)